

Atty. Docket No. Q66786
PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. § 1.312
U.S. Application No. 09/977995

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Previously presented) An ink bag for storing ink therein, comprising
a flexible bag body, which is deformable in accordance with consumption of the ink;
an ink supply port, from which the ink stored therein is supplied; and
a non-contact type memory IC, provided on the bag body, wherein:
the bag body includes a first part having a first flexibility and a second part having a
second flexibility which is lower than the first flexibility; and
the memory IC is provided in the second part of the bag body.
2. (Cancelled).
3. (Cancelled).
4. (Previously presented) The ink bag as set forth in claim 1, the second part is an
outer peripheral portion of the bag body.
5. (Original) The ink bag as set forth in claim 4, wherein the outer peripheral
portion of the bag body is formed by heat-welding outer peripheral portions of flexible sheet
members.
6. (Previously presented) An ink bag for storing ink therein, comprising:

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a flexible bag body, which is deformable in accordance with consumption of the ink;
an ink supply port, from which the ink stored therein is supplied; and
a non-contact type memory IC, provided on the bag body, wherein:
the bag body includes a first part having a first flexibility and a second part having a
second flexibility which is lower than the first flexibility; and,
the memory IC is provided in the first part of the bag body.

7. (Original) The ink bag as set forth in claim 6, wherein the first part includes at
least a center portion of the bag body.

8. (Previously presented) The ink bag as set forth in claim 1 or 6, wherein the
memory IC stores data indicating an amount of ink remaining therein.

9. (Previously presented) The ink bag as set forth in claim 1 or 6, wherein the
memory IC is placed in the vicinity of the ink supply port.

10. (Previously presented) A recording apparatus, comprising:
a flexible ink bag for storing ink consumed by the recording apparatus therein, on which
a non-contact type memory IC is provided, the ink bag being deformable in accordance with the
consumption of ink, and detachably provided in the recording apparatus; and
a data communicator, which opposes to the memory IC to perform non-contact data
communication therewith, wherein:

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the bag body includes a first part having a first flexibility and a second part having a second flexibility which is lower than the first flexibility; and

the memory IC is provided in the second part of the bag body.

11. (Currently amended) The recording apparatus as set forth in claim 10-~~or 28~~, wherein the ink bag is mounted such that the memory IC is directed downward.

12. (Currently amended) The recording apparatus as set forth in claim 10-~~or 28~~, wherein the memory IC stores data indicating an amount of ink remaining therein.

13. (Currently amended) The recording apparatus as set forth in claim 10-~~or 28~~, further comprising:

a cartridge casing, which houses the ink bag therein; and

a chamber section, which houses the cartridge casing therein.

14. (Original) The recording apparatus as set forth in claim 13, wherein the cartridge casing is formed with an aperture through which the data communication between the memory IC and the data communicator is conducted.

15. (Original) The recording apparatus as set forth in claim 13, wherein:
the cartridge casing is formed with an outlet to which an ink supply port of the ink bag is secured; and

the memory IC is placed in the vicinity of the ink supply port.

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16. (Currently amended) The recording apparatus as set forth in claim 10-~~or~~ 28, wherein a consumed amount of ink is judged in accordance with information indicated by the memory IC.

17. (Previously presented) An ink bag detachably provided in a printer, for storing ink consumed by the printer therein, comprising:

a flexible bag body, which is deformable in accordance with the consumption of ink; and
a non-contact type memory IC, provided on the flexible bag body so as to be substantially immovable with respect to the printer, regardless of the consumption of ink, wherein:
the bag body includes a first part having a first flexibility and a second part having a second flexibility which is lower than the first flexibility; and
the memory IC is provided in the first part of the bag body.

18. (Original) The ink bag as set forth in claim 17, wherein the memory IC is placed on an outer peripheral portion of the bag body.

19. (Previously presented) The ink bag as set forth in claim 18, wherein the outer peripheral portion of the bag body is formed by heat-welding the outer peripheral portions of flexible sheet members.

20. (Currently amended) The ink bag as set forth in claim 17-~~or~~ 29, wherein the memory IC is provided on an outer surface of the bag body which directs downward with respect to the printer.

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21. (Previously presented) A container, comprising:
a flexible bag adapted to hold a liquid;
a memory attached to the bag; wherein the memory is a non-contact integrated circuit;
and
a housing for housing the flexible bag, the housing formed with an aperture to expose the
memory, the aperture enabling non-contact data communication between the memory and a
device external to the housing.

22. (Previously presented) The container as in claim 21, wherein the liquid comprises
ink; and,
wherein the bag is flexible and deformable with the consumption of a quantity of ink
supplied therein.

23. (Previously presented) The container as in claim 22, wherein the bag further
includes an ink supply port adapted to supply the ink.

24. (Cancelled).

25. (Cancelled).

26. (Cancelled).

27. (Cancelled).

28. (Previously presented) A recording apparatus, comprising:

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a flexible ink bag for storing ink consumed by the recording apparatus therein, on which a non-contact type memory IC is provided, the ink bag being deformable in accordance with the consumption of ink and detachably provided in the recording apparatus; and

a data communicator, which opposes the memory IC and performs non-contact data communication therewith; wherein:

the bag body includes a first part having a first flexibility and a second part having a second flexibility which is lower than the first flexibility; and

the memory IC is provided in the first part of the bag body.

29. (Previously presented) An ink bag detachably provided in a printer, for storing ink consumed by the printer therein, comprising:

a flexible bag body, which is deformable in accordance with the consumption of ink; and
a non-contact type memory IC, provided on the flexible bag body so as to be substantially immovable with respect to the printer, regardless of the consumption of ink, wherein:

the bag body includes a first part having a first flexibility and a second part having a second flexibility which is lower than the first flexibility; and

the memory IC is provided in the second part of the bag body.

30. (Previously presented) An ink bag system for storing ink therein;

a flexible bag body, which is deformable in accordance with consumption of the ink;

an ink supply port, from which the ink stored therein is supplied;

a non-contact type memory IC, provided on the bag body; and

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a housing which houses the ink bag therein, the housing formed with an aperture that provides a communication path from the non-contact type data IC to a device external to the housing.

31. (Previously presented) A recording apparatus, comprising:

a flexible ink bag for storing ink consumed by the recording apparatus therein, on which a non-contact type memory IC is provided, the ink bag being deformable in accordance with the consumption of ink;

a housing which houses the ink bag therein, the housing formed with an aperture that provides a communication path from the non-contact type data IC to a device external to the housing; said housing being detachably provided in the recording apparatus; and

a data communicator in the recording apparatus, which opposes the memory IC when the housing is installed in the recording apparatus, said data communicator performing non-contact data communication with said memory IC through the aperture of the housing.

32. (Previously presented) An ink bag detachably provided in a printer, for storing ink consumed by the printer therein, comprising:

a flexible bag body, which is deformable in accordance with the consumption of ink;

a non-contact type memory IC, provided on the flexible bag body so as to be substantially immovable with respect to the printer, regardless of the consumption of ink; and

a housing for housing the ink bag, the housing formed with an aperture to enable non-contact data communication between the memory IC and the printer.

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33. (Previously presented) The ink bag system of claim 30, wherein the aperture is formed completely through the housing to expose the non-contact type memory IC to the device external to the housing.

34. (Previously presented) The recording apparatus of claim 31, wherein the aperture is formed completely through the housing to expose the non-contact type memory IC to the data communicator.

35. (Previously presented) The ink bag of claim 32, wherein the aperture is formed completely through the housing to expose the non-contact type memory IC to the printer.

36. (Previously presented) The container of claim 21, wherein the aperture is formed completely through the housing to expose the non-contact type memory IC to the device external to the housing.

37. (New) The recording apparatus as set forth in claim 28, wherein the ink bag is mounted such that the memory IC is directed downward.

38. (New) The recording apparatus as set forth in claim 28, wherein the memory IC stores data indicating an amount of ink remaining therein.

39. (New) The recording apparatus as set forth in claim 28, further comprising:
a cartridge casing, which houses the ink bag therein; and
a chamber section, which houses the cartridge casing therein.

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40. (New) The recording apparatus as set forth in claim 28, wherein a consumed amount of ink is judged in accordance with information indicated by the memory IC.

41. (New) The ink bag as set forth in claim 29, wherein the memory IC is provided on an outer surface of the bag body which directs downward with respect to the printer.